Comparison

	BPI	VS	Bob Greene
Initial Invest.	$67,000,000		B.F.R. - $35,000,000 ACP - $20,000,000 B&S, Pick - 12,000,000 Chrome & Tin Cont 3,000,000 $70,000,000
Initial O&M	$2,250,000		B.F.R - $ 237,295 ACP - $ 2,128,793 B&S Pick - $ 174,000 Chrome & Tin Cont. $ - 400,000 $2,140,000
Invest Tax Credit Rate	.05		.05
Inflation rate	0.06		.06
Income Tax Rate	0.51		0.48 + .06 = 0.54
Return on Equity	0.111		0.115
Interest rate	0.111		0.0575
Equity share of investment	70%		77%

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	BPI	Bob Greene
Depreciation Method	Sum of year's digits	Sum of year's digits
Depreciable Life	5 years	5 years.
Useful Life.	20 years	25 years.
Base annual Assessment	$3,016,000	BRS. - $1,219,707 ACP - $1,613,845 B&SP - 593,907 C&T Cont - (-) 76,656
Period out of Compliance.	2.75 years.	BRS - 2.25 years. ACP - 3.0825 years. B&S Pick - 1.5 years. T&C Cont 1.75 years.
Penalty Assessment	3,016,000 x 2.75 = $8,294,000	BRS- 1,219,707 x 2.25 = $2,744,407 ACP- 1,613,845 x 3.08 = 4,970,644 B&SP - 593,907 x 1.5 = 890,860 C&T C -(-) 76,656 x 1.75 = (-) 134,148 $8,471,763

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Explanation for differences in formula factors:

Inflation rate

BPI used a 10% inflation rate which is not the inflation that is presently occuring. Bob Greene suggested the 6% rate which is the present rate.
If Bob Greene used the 10% rate the penalty assessment would be less or conversely if BPI used the 6% the penalty investment would be greater.

Income Tax rate.
BPI used a 51% rate. Bob Greene used 48% Federal tax plus 6% Indiana tax or 54%.

Return on Equity
BPI used 11.1% which was taken from Moody's. Bob Greene used 11.5% which came from a U.S.S. Prospectus as their return for 1975.

11430

Interest rate
BPI used a 11.1% rate but I do not know their source of information.
Bob Greene used 5 3/4% which is the interest rate that USS is paying for $400,000,000 debentures that were sold in Mar. 1976.

Equity share of investment.
BPI used an approximate equity share of investment for the steel industry. Whereas Bob Greene used 77% which comes from the USS Prospectus.

Useful life
BPI used 20 years as useful life. I gave Bob Greene a useful life of 25 years as being more appropriate.

Base Annual Assessment
BPI calculated only one assessment for a $67,000,000 capital expenditure and $2,250,000 O&M. I established the capital costs for the four major facilities and established quenching costs for each of the four facilities.

Period out of compliance.
BPI assumed 2.75 years for all facilities. I took the periods out of compliance for the four facilities from the Compliance Schedule.

Penalty Assessment.
BPI applied the Base Annual Assessment for 2.75 years.
I applied the Base Annual Assessment for each facility for the period the facility is to be Out of Compliance.
My Penalty Assessment is the sum of the Penalty Assessment for each facility.

Information furnish Bob Greene.
U.S.S.C - Gary Works.
Recycle System

Cost	$ 35,000,000
Operating cost	$ 237,295
Investment tax credit	- .10
Income tax rate	.32 + .06 = .38
Inflation rate	.06
Return on equity	14.5%
Equity share of investment	.77
Depreciation method.	
Depreciable life.	5 years.
Useful life.	25 years
Defered period.	2 yr 3 months.
Blowdown treatment	$ 20,000,000
Operating cost	2,128,793
Invest tax credit	.10
useful life	25 years.
Defered time	3 yr 1 mon.
Bar & Structural	$ 12,000,000
Operating cost	174,000
Useful life	15 years.
Defered time	1 yr 6 months
Iron & Chrome	3,000,000
	- 400,000
Invest tax credit.	0
useful life.	20 years.
	1 yr 9 mon.

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U.S.S.C - Gary Works.

Description of procedure that would have been used in analyzing the profitability accrued to USSC thru non-compliance from July 1, 1977 thru Aug 1, 1980

USSC's reported pollution abatement capital costs of about $70,000,000 were analyzed for:

(1) the abatement facilities included,
(2) a cost appraisal of the facilities included,
(3) the period of time that the capital expenditures for the facilities were delayed,
(4) the incremental operating costs avoided through delaying the installation of the facilities,
(5) the financing costs avoided through delaying the installation of the facilities.

To determine the time delayed, the pollution abatement facilities were grouped into categories as required to meet the compliance schedule. The categories and the respective compliance delay are as follows:

(a) Gas & Structural Waste Liquid Disposal - Compliance Delay 1 yr 6 months
(b) Electrolytic Tinning Line - Compliance Delay 1 yr 9 months.
(c) Tin Mill Chrome Control - Compliance Delay 1 yr 9 months.

(d) Blast Furnace Recycle System —
Compliance Delay 2 years 3 months.
(e) Blowdown Treatment
(alkaline Chlorination Treatment) —
Compliance Delay 3 years 1 month.

Finally the cost benefits accrued were adjusted to cost benefits realized by by substracting the income tax that would be incurred, and the inflation costs that could be expected from July 1, 1977 until compliance.

USSC – Gary Works.

Penalty Calculation.

From Bob Greene

Base Annual assessments.

Recycle System	–	$1,219,707/yr.
Blowdown treatment	–	$1,613,845/yr.
Bar & Structural	–	$ 593,907/yr.
Chrome & Zinc Control	–	$ – 76,656/yr.

Assessment for period out of compliance.

Recycle System.

$1,219,707 × 2.25 yrs = $2,744,407

Blowdown Treatment.

$1,613,845 × 3.08 yrs = $4,970,644

Bar & Structural

$593,907 × 1.5 yrs = $890,860

Chrome & Zinc Control

$(–) 76,656 × 1.75 yrs = $(–) 134,148

Penalty Assessment = $8,471,763

J.E. McDermott
9/2/77

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Note

S: Penalty calculations
USSC - Gary

D: 9/6/77

F: BGC
T: Distribution

Attached are 3 different penalty estimates for USSC Gary. Jim McDermott's prepared these using the best info. available and no changes are expected.

The 3 calculations are:

1 - H.Q. form at 12% interest

2 - H.Q. form at 5 3/4% interest (what USSC will actually have to pay)

3 - Computer run formula (Greene) (also using 5 3/4%)

This last calculation, approximately $8.5 million, is considered the most accurate of the group.

11427

McDonald, Bryson, Ginsberg, Ullrich

Bill